

REMARKS

At the time of the Final Office Action dated October 23, 2003, claims 20-26 were pending and rejected in this application. Claims 22-24 have been amended, and claims 20-21 and 26 have been cancelled. Applicants submit that the present Amendment does not generate any new matter issue.

In the third enumerated paragraph of the Office Action, the Examiner objected to the drawings for failing to show every feature of the invention specified in the claims. With regard to claim 21, Applicants note that claim 21 has been cancelled, and as such, the Examiner's objection with regard to claim 21 is moot.

With regard to claim 25, the Examiner asserted that "the drawings fail to show a combined structure of claims 22 and 25 'conductive line patterns' formed on the both surfaces of the lower semiconductor chip." Applicants respectfully disagree with the Examiner's characterization of claim 25 since claim 25 does not recite conductive line patterns formed on both sides of a lower semiconductor chip. Instead claim 25 recites that a conductive line pattern is formed on a first major surface of a lower semiconductor device and a conductive line pattern is formed on a second major surface of an upper semiconductor device. These features are shown, for example, in Fig. 13 of Applicants' disclosure. Applicants, therefore, respectfully solicit withdrawal of the imposed objection to the drawings.

CLAIMS 21 AND 25 ARE REJECTED UNDER THE FIRST PARAGRAPH OF 35 U.S.C. § 112

Claim 21 has been cancelled, and thus the Examiner's rejection of claim 21 is moot.

With regard to claim 25, the Examiner is referred to the immediately-above paragraph, which indicates that the limitations recited in claim 25 are shown in Fig. 13 of Applicants' disclosure. Applicants, therefore, respectfully solicit withdrawal of the imposed rejection of claim 25 under the first paragraph of 35 U.S.C. § 112.

CLAIMS 20 AND 23 ARE REJECTED UNDER 35 U.S.C. § 102 AS BEING ANTICIPATED BY ODA, U.S. PATENT NO. 6,340,845

Claim 20 has been cancelled, and thus the Examiner's rejection of claim 20 is moot.

With regard to claim 23, the Examiner asserted that Fig.1 of Oda discloses two semiconductor devices stacked in the manner recited in the claims. This rejection is respectfully traversed.

Claim 23 has been amended to recite that a conductive member of a lower one of the semiconductor devices is directly connected to a conductive member of an upper one of the semiconductor devices. This feature is shown, for example, in Figs. 11-13 of Applicants' disclosure, which illustrate an upper conductive member 8' in direct contact with a lower conductive member 8. In contrast, the connection patterns 4 of Oda do not directly connect with one another. Thus, Applicants submit that Oda fails to identically disclose the claimed invention as recited in claim 23, and therefore, Applicants respectfully solicit withdrawal of the imposed rejection of claim 23 under 35 U.S.C. § 102 for anticipation based upon Oda.

**CLAIMS 21 AND 24 ARE REJECTED UNDER 35 U.S.C. § 103 FOR OBVIOUSNESS BASED
UPON ODA IN VIEW OF HSUAN ET AL., U.S. PATENT NO. 6,252,300 (HEREINAFTER HSUAN)**

Claim 21 has been cancelled, and thus the Examiner's rejection of claim 21 is moot. Applicant notes that claim 24 has been amended to be placed in independent form and now recites that a conductor member of a lower one of the semiconductor devices is directly connected to a conductive member of an upper one of the semiconductor devices.

In contrast, the conductor members 4 of Oda of the upper stage and lower stage (i.e., the claimed upper and lower ones of the semiconductor devices) do not directly contact one another. Instead, a soldering ball 3 and a landing 2 is positioned between the conductor members 4. Thus, this limitation is neither taught nor suggested by Oda. Furthermore, the second applied reference of Hsuan also fails to teach or suggest this limitation. Therefore, the combination of Oda in view of Hsuan fails to teach or suggest the claimed invention, as recited in claim 24. Applicants, therefore, respectfully solicit withdrawal of the imposed rejection of claim 24 under 35 U.S.C. § 103 for obviousness based upon Oda in view of Hsuan.

**CLAIMS 22 AND 25 ARE REJECTED UNDER 35 U.S.C. § 103 FOR OBVIOUSNESS BASED
UPON ODA IN VIEW OF EIDE, U.S. PATENT NO. 6,014,316**

In the eleventh enumerated paragraph of the Office Action, the Examiner asserts that "Eide teaches in Figs. 3, Fig. 6a and Fig. 7 a conductive line pattern (7) extending from a second electrode (5, at the bottom of the element 8)" and that it would have been obvious to modify Oda in view of Eide for "the purpose of providing the ability to transpose connections to different ball grid contact positions." This rejection is respectfully traversed.

Independent claim 22, as amended, recites that a conductive line pattern is formed on a second major surface and extends from the second electrode. As shown in Fig. 3 of Eide, the conductor elements 7 are illustrated with dotted lines, indicating the conductive elements 7 are within the semiconductor device and not on a major surface thereof. Thus, even if the applied prior art were combined in the manner suggested by the Examiner, the claimed invention would not result. Therefore, Applicants respectfully solicit withdrawal of the imposed rejection of claims 22 and 25 under 35 U.S.C. § 103 for obviousness based upon Oda in view of Eide.

CLAIM 26 IS REJECTED UNDER 35 U.S.C. § 103 FOR OBVIOUSNESS BASED UPON ODA IN VIEW OF HSUAN AND FURTHER IN VIEW OF PIERSON ET AL., U.S. PATENT NO. 5,903,437

Claim 26 has been cancelled, and thus, the Examiner's rejection of claim 26 is moot.

Applicants have made every effort to present claims which distinguish over the prior art, and it is believed that all claims are in condition for allowance. However, Applicants invite the Examiner to call the undersigned if it is believed that a telephonic interview would expedite the prosecution of the application to an allowance. Accordingly, and in view of the foregoing remarks, Applicants hereby respectfully request reconsideration and prompt allowance of the pending claims.

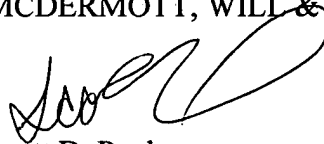
To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

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including extension of time fees, to Deposit Account 500417, and please credit any excess fees to such deposit account.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Scott D. Paul', is written over the firm name.

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